ABSTRACT OF THE DISCLOSURE

A bit rate control method and apparatus for MPEG-4 video coding are provided. The method includes performing initialization in which a video frame is inputted and a memory is allocated to a rate distortion (RD) buffer where an encoded bitstream to be transmitted to a decoder is stored; intra-coding the inputted video frame; updating the RD buffer; performing post-frame skip in which whether or not the next frame should be encoded is determined to avoid underflow or overflow of the RD buffer; receiving the next video frame, and estimating a quantization parameter (QP) or inter-coding the next video frame depending on whether or not the inputted frame is a first video object plane (VOP); performing a back propagation (BP) model update based on the number of the inputted frames after inter-coding the next frame, or performing the post-frame skip again after performing the self-organizing control; and receiving the next video frame, and estimating QPs of all the frames or performing the self-organizing control in all the frames.